

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A  
FILING UNDER 35 U.S.C. 371**

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)

**09/701241**

INTERNATIONAL APPLICATION NO. PCT/EP99/02917	INTERNATIONAL FILING DATE 29 April 1999 (29.04.99)	PRIORITY DATE CLAIMED 27 May 1998 (27.05.98)
TITLE OF INVENTION REMOTE CONTROL DEVICE FOR MOTOR VEHICLES		
APPLICANT(S) FOR DO/EO/US Paul ASCHAUER and Michael KOBELBAUER		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<p>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371</p> <p>3. <input type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(1).</p> <p>4. <input checked="" type="checkbox"/> A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(e)(2)).</p> <p>a. <input checked="" type="checkbox"/> is transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>b. <input type="checkbox"/> has been transmitted by the International Bureau</p> <p>c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US)</p> <p>6. <input checked="" type="checkbox"/> A translation of the International Application into English (35 U.S.C. 371(e)(2)).</p> <p>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(e)(3))</p> <p>a. <input type="checkbox"/> are transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>b. <input type="checkbox"/> have been transmitted by the International Bureau.</p> <p>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</p> <p>d. <input type="checkbox"/> have not been made and will not be made.</p> <p>8. <input type="checkbox"/> A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(e)(3)).</p> <p>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(e)(4)). (Unexecuted)</p> <p>10. <input checked="" type="checkbox"/> A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(e)(5)).</p>		
Item 11. to 16. below concern other document(s) or information included:		
<p>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</p> <p>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>13. <input checked="" type="checkbox"/> A <b>FIRST</b> preliminary amendment.</p> <p><input type="checkbox"/> A <b>SECOND</b> or <b>SUBSEQUENT</b> preliminary amendment.</p> <p>14. <input type="checkbox"/> A substitute specification.</p> <p>15. <input type="checkbox"/> A change of power of attorney and/or address letter.</p> <p>16. <input checked="" type="checkbox"/> Other items or information: a. 2 Sheets of Drawings showing Figures 1-2.</p>		

U.S. APPLICATION NO (if known, see 37 CFR 1.5) <b>09/701241</b>	INTERNATIONAL APPLICATION NO PCT/EP99/02917	ATTORNEY'S DOCKET NUMBER 951/49356	
17. [ X ] The following fees are submitted:		CALCULATIONS	PTO USE ONLY
Basic National Fee (37 CFR 1.492(a)(1)-(5)):			
Search Report has been prepared by the EPO or JPO ..... \$860.00 860.00			
International preliminary examination fee paid to USPTO (37 CFR 1.482) ..... \$690.00			
No international preliminary examination fee paid to USPTO (37 CFR 1.482)			
but international search fee paid to USPTO (37 CFR 1.445(a)(2)) ..... \$710.00			
Neither international preliminary examination fee (37 CFR 1.482) nor			
international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... \$1000.00			
International preliminary examination fee paid to USPTO (37 CFR 1.482)			
and all claims satisfied provisions of PCT Article 33(2)-(4) ..... \$100.00			
<b>ENTER APPROPRIATE BASIC FEE AMOUNT = \$860.00</b>			
Surcharge of \$130.00 for furnishing the oath or declaration later than [ ] 20 [ X ] 30 months from the earliest claimed priority date (37 CFR 1.492(e)).		\$130.00	
Claims	Number Filed	Number Extra	Rate
Total Claims	8- 20 =		X \$18.00 \$ --
Independent Claims	2- 3 =		X \$80.00 \$ --
Multiple dependent claims(s) (if applicable)		+ \$270.00 \$ --	
<b>TOTAL OF ABOVE CALCULATIONS = \$</b>			
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 CFR 1.9, 1.27, 1.28).		\$ --	
<b>SUBTOTAL = \$990.00</b>			
Processing fee of \$130.00 for furnishing the English translation later than [ ] 20 [ ] 30 months from the earliest claimed priority date (37 CFR 1.492(f)).		\$ --	
<b>TOTAL NATIONAL FEE = \$990.00</b>			
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28,3.31). \$40.00 per property +		\$	
<b>TOTAL FEE ENCLOSED = \$990.00</b>			
		Amount to be: refunded	\$
		charged	\$
<p>a. [ X ] One check in the amount of <u>\$ 990.00</u> for the filing fee is enclosed.</p> <p>b. [ ] Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. [ X ] The Commissioner is hereby authorized to charge any additional fees, which may be required, or credit any overpayment to Deposit Account No. <u>05-1323</u>. A duplicate copy of this sheet is enclosed.</p>			
<p>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</p>			
<p>SEND ALL CORRESPONDENCE TO:</p> <p>Evenson, McKeown, Edwards &amp; Lenahan, P.L.L.C. 1200 G Street, N.W., Suite 700 Washington, D.C. 20005 Tel. No. (202) 628-8800 Fax No. (202) 628-8844</p>			
<p></p> <p>SIGNATURE Donald D. Evenson</p>			
<p>NAME</p>			
<p>REGISTRATION NUMBER 26,160</p>			
<p>DATE</p>			

09/701241

JC01 Rec'd PCT/PTO 27 NOV 2000  
Attorney Docket: 951/49356  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: PUL ASCHAUER ET AL.

Serial No.: NOT YET ASSIGNED PCT NO.: PCT/EP99/02917

Filed: November 27, 2000

Title: REMOTE CONTROL DEVICE FOR MOTOR VEHICLES

PRELIMINARY AMENDMENT

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Please enter the following amendments to the specification, claims and abstract prior to the examination of the application.

IN THE SPECIFICATION:

A substitute specification is submitted herewith.

IN THE CLAIMS:

Please cancel all of the claims presently in the application and substitute new claims 6-14 as follows:

-- 6. A remote control device for motor vehicles with a transmitter for a wireless transmitted enabling signal, which is activated only when the user has been recognized as the authorized user, and with an identification device, which recognizes this authorization and is assembled in one module

along with the transmitter, wherein the identification device records the personal and individual characteristics of the user.

7. The device as claimed in claim 6, wherein the identification device records a fingerprint.

8. The device as claimed in claim 6, wherein the identification device records a vocal characteristic.

9. The device as claimed in claim 8, wherein the identification device checks the recorded information and performs the verification check of the user.

10. The device as claimed in claim 8, wherein the identification device transmits the recorded information to the vehicle and performs a verification check of the user in the motor vehicle.

11. The device as claimed in claim 5, wherein, following the transmission of the information about the authorized user, corresponding information about a new user can be transmitted, who is then also authorized.

12. The device as claimed in claim 6, wherein the authorization of the new user is restricted.

13. The device as claimed in claim 7, wherein the identification device transmits the recorded information to the vehicle and performs a verification check of the user in the motor vehicle.

14. The device as claimed in claim 8, wherein the identification device transmits the recorded information to the vehicle and performs a verification check of the user in the motor vehicle.--

**IN THE ABSTRACT:**

Please substitute the new Abstract of the Disclosure submitted herewith on a separate page for the original Abstract presently in the application.

**REMARKS**

Entry of the amendments to the specification, claims and abstract before examination of the application is respectfully requested. These claims have been amended to remove multiple dependencies.

If there are any questions regarding this Preliminary Amendment or this application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient

to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #951/49356).

Respectfully submitted,

November 27, 2000

  
Donald D. Evenson  
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Registration No. 26,160

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& LENAHAN, P.L.L.C.  
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DDE/rrt

-- ABSTRACT OF THE DISCLOSURE

A remote control device for motor vehicles having a transmitter for wireless transmission activated only when the user has been recognized as the authorized user. An identification device recognizes the authorization and is assembled with the transmitter in a single module. The identification device records personal and individual characteristics of the user and transmits the recorded information to the vehicle, as well as performs the verification check of the user within the vehicle.

09/7Q1241

JC01 Rec'd PCT/PTO 27 NOV 2000  
Attorney Docket: 951/49356  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: PUL ASCHAUER ET AL.

Serial No.: NOT YET ASSIGNED PCT No.: PCT/EP99/02917

Filed: November 27, 2000

Title: REMOTE CONTROL DEVICE FOR MOTOR VEHICLES

SUBMISSION OF SUBSTITUTE SPECIFICATION

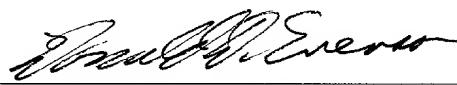
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Attached is a Substitute Specification and a marked-up copy of the original specification. I certify that said substitute specification contains no new matter and includes the changes indicated in the marked-up copy of the original specification.

Respectfully submitted,

November 27, 2000

  
\_\_\_\_\_  
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DDE/rrt

## Remote Control Device for Motor Vehicles

BACKGROUND AND SUMMARY OF THE INVENTION

This application claims the priority of German Patent Document, filed May 27, 1998 and PCT International No. PCT/EP99/02917, the disclosures of which are expressly incorporated by reference herein.

The invention relates to a remote control device for motor vehicles. Such a remote control device is known from the non-prepublished German patent application 197 13 607 in so far as there the enabling signal cannot be triggered until the user has been recognized as an authorized user. Within the scope of the present invention the alternative embodiment is also conceivable, wherein the enabling signal is transmitted, to be sure, but it does not become activated until the user has been recognized as an authorized user. Thus, it is not a matter for the transmission but rather the actuation of the enabling signal whether the user is the authorized user. Furthermore, within the scope of the present invention the earlier invention is only relevant in so far as now the focus is especially on the application in a motor vehicle.

The invention is based on the problem of providing a remote control device of the class described in the introductory part,

with which the goal is reached that there is an effective guarantee against unauthorized use, for example in cases where the transmitter and thus the identification device have fallen into the hands of an unauthorized user.

[The invention solves this problem with the features of patent claim 1.]

The identification device now recognizes the personal, individual biometric characteristics of the user. Thus, the case, where the identification is done with a key for an access control device, is ruled out. Only the authorized user exhibits the individual characteristics. Only he is in a position to trigger the desired functions using the enabling signal. In this respect it involves primarily the opening of a vehicle, but also the closing of said vehicle or the starting of the drive motor and also within the scope of personalization the possibility of adjusting accessory components of the vehicle, like seats, the air conditioning system and the like in accordance with the personal needs of the respective user.

The identification device can be designed in different ways. One possibility uses a voice recognition module that, like the known access control devices, recognizes the individual vocal

characteristics of the respective user.

As an alternative, it is also possible to scan a fingerprint of the authorized user using the identification device. In this case it can be a conventional sensor, which, on the basis of image recognition, records a static image of the fingerprint and compares with the corresponding information of the authorized user. As an alternative, however, it can also be a sensor, where the fingerprint or the individual features of the fingerprint are recorded by a sweeping movement of the finger over a stationary sensor.

The verification of the user can be done in different ways. It can be done, for example, in the module, formed by sensor and identification device. This module can also be connected to a conventional mechanical key. This possibility of verification offers the advantage that the enabling signal may or may not be transmitted to the vehicle. Thus, in particular safety from interception is achieved for the enabling signal.

As an alternative, the verification of the user can also be done in the vehicle. Then the enabling signal and the information obtained by means of the identification device can be transmitted to the vehicle; and then, only when this information is that of

the authorized user, are the corresponding functions of the vehicle triggered by means of the enabling signal.

The latter offers additionally the possibility of enabling several authorized persons to use the vehicle. To this end, the information of an authorized person is first transmitted. If then, for example, within a timespan of one minute, the information is transmitted in the form of biometric data of a new user, said new user will also be considered in the future as the authorized user. The prerequisite is that this information, just like the information of the first authorized user, be stored in the vehicle and kept on hand for a comparison with information that is subsequently transmitted.

Thus, it is possible, for example, to put the attendant at a hotel or on a parking lot in the position of using the vehicle by himself. Simultaneously it is guaranteed that the use of an unauthorized person is ruled out. It is also possible to limit the usage possibilities for the user, provided with authorization in this manner. Thus, for example, it can be logical to provide this person with only the use of the vehicle at a maximum speed of 20 km/h. This measure offers the advantage that, if the new user has obtained his authorization through force of the first user, this second user has only limited control over the motor

vehicle.

Other objects, advantages and novel features of the present invention will become apparent from the following detailed description of the invention when considered in conjunction with the accompanying drawings.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[The invention is explained in detail with reference to the drawings.]

Figure 1 is an overview of the inventive remote control device for motor vehicles and

Figure 2 is an enlargement of a detail of Figure 1.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Figure 1 is a top view of a remote controlled vehicle 1, which has several transponders 2, 3, which are connected to a central control device (not illustrated). The transponders 2 and 3 are a part of a remote control device, which can be controlled by a mobile transponder 4. The transponder 4 is located in today's conventional remote control key 4' and exhibits a number of contact switches, for example 5 and 6. The contact switch 5

serves to send the command "lock" or "secure" to a control device for the central locking and closing system of the vehicle (not illustrated). The contact switch 6 serves to send the command "unlock". Whereas the operating mode of the contact switch 5 corresponds to today's customary radio key, the operating mode of the contact switch 6 is designed according to the invention.

If the contact switch 6 is actuated, a sensor is simultaneously activated. Said sensor is located below the scanning element 6', which is made of a transparent material. The sensor 7 is shown in detail in Figure 2. Figure 2 is an enlargement of the key 4' of Figure 1. The sensor 7 takes a picture of the user's skin furrow structure and compares this structure with a structure, deposited in a storage (not illustrated) of the key 4. The comparison is done in the well-known manner using suitable commercial devices for fingerprint identification. If this comparison shows the user to be the authorized user, a transmitter, also provided in the key 4', transmits an enabling signal to the transponders 2 and 3, which then forward this enabling signal to suitable devices, for example, for central locking or starting of the vehicle. This signal can be individually tuned, as well-known, by means of an encryption mechanism to the respective vehicle so as to be safe from interception.

Instead of the illustrated and described embodiment with the comparator, which is arranged in the key 4' and is intended for the fingerprint of the authorized user, it is also possible to design the sensor 7 in such a manner that it records only information about the respective user's skin furrow structure and transmits this information to the vehicle, where the comparator is located. Said comparator compares this information with the stored information of the authorized user(s) and optionally carries out the described enabling operations.

After identification of an authorized user, it is also possible to store the biometric data (finger furrow structure) of another user or also transmit said data to the vehicle 1. Said identification can be made visible, for example, by means of a light display 8 in the key 4. This user is then also authorized and can in the future open or start the vehicle without previous authorization by the first authorized user. The only condition is that the biometric data be recorded by the sensor 7 in the described manner and compared with the then stored data of the same user. In this manner it is possible to record the usage authorization of several users.

Instead of a sensor, which responds to the skin furrow structure, a well-known voice comparator can also be provided in

the key 4' that identifies the authorized user by means of his vocal spectrum.

In this manner it is possible to give only the authorized user the option of the actual use of the vehicle with the aid of the key 4. If the key 4 is lost, the biometric data of the finder and possible unauthorized user are neither stored in the key 4' nor in the vehicle 1. Despite possession of the key, he is not in a position to use the vehicle. The storage procedure can be done in a manner that is manipulation safe in that storage is only possible if the mechanical part 9 of the key 4' is inserted into a receptacle, e.g. the ignition lock of the vehicle 1 and unlocks there a mechanical stop. In this manner effective protection against theft is achieved.

The foregoing disclosure has been set forth merely to illustrate the invention and is not intended to be limiting.  
Since modifications of the disclosed embodiments incorporating the spirit and substance of the invention may occur to persons skilled in the art, the invention should be construed to include everything within the scope of the appended claims and equivalents thereof.

## Remote Control Device for Motor Vehicles

## BACKGROUND AND SUMMARY OF THE INVENTION

This application claims the priority of German Patent Document, filed May 27, 1998 and PCT International No. PCT/EP99/02917, the disclosures of which are expressly incorporated by reference herein.

The invention relates to a remote control device for motor vehicles. Such a remote control device is known from the non-prepublished German patent application 197 13 607 in so far as there the enabling signal cannot be triggered until the user has been recognized as an authorized user. Within the scope of the present invention the alternative embodiment is also conceivable, wherein the enabling signal is transmitted, to be sure, but it does not become activated until the user has been recognized as an authorized user. Thus, it is not a matter for the transmission but rather the actuation of the enabling signal whether the user is the authorized user. Furthermore, within the scope of the present invention the earlier invention is only relevant in so far as now the focus is especially on the application in a motor vehicle.

The invention is based on the problem of providing a remote

control device of the class described in the introductory part, with which the goal is reached that there is an effective guarantee against unauthorized use, for example in cases where the transmitter and thus the identification device have fallen into the hands of an unauthorized user.

The identification device now recognizes the personal, individual biometric characteristics of the user. Thus, the case, where the identification is done with a key for an access control device, is ruled out. Only the authorized user exhibits the individual characteristics. Only he is in a position to trigger the desired functions using the enabling signal. In this respect it involves primarily the opening of a vehicle, but also the closing of said vehicle or the starting of the drive motor and also within the scope of personalization the possibility of adjusting accessory components of the vehicle, like seats, the air conditioning system and the like in accordance with the personal needs of the respective user.

The identification device can be designed in different ways. One possibility uses a voice recognition module that, like the known access control devices, recognizes the individual vocal characteristics of the respective user.

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As an alternative, it is also possible to scan a fingerprint of the authorized user using the identification device. In this case it can be a conventional sensor, which, on the basis of image recognition, records a static image of the fingerprint and compares with the corresponding information of the authorized user. As an alternative, however, it can also be a sensor, where the fingerprint or the individual features of the fingerprint are recorded by a sweeping movement of the finger over a stationary sensor.

The verification of the user can be done in different ways. It can be done, for example, in the module, formed by sensor and identification device. This module can also be connected to a conventional mechanical key. This possibility of verification offers the advantage that the enabling signal may or may not be transmitted to the vehicle. Thus, in particular safety from interception is achieved for the enabling signal.

As an alternative, the verification of the user can also be done in the vehicle. Then the enabling signal and the information obtained by means of the identification device can be transmitted to the vehicle; and then, only when this information is that of the authorized user, are the corresponding functions of the vehicle triggered by means of the enabling signal.

The latter offers additionally the possibility of enabling several authorized persons to use the vehicle. To this end, the information of an authorized person is first transmitted. If then, for example, within a timespan of one minute, the information is transmitted in the form of biometric data of a new user, said new user will also be considered in the future as the authorized user. The prerequisite is that this information, just like the information of the first authorized user, be stored in the vehicle and kept on hand for a comparison with information that is subsequently transmitted.

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Other objects, advantages and novel features of the present

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Remote Control Device for Motor Vehicles

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The invention is based on the problem of providing a remote control device of the class described in the introductory part, with which the goal is reached that there is an effective guarantee against unauthorized use, for example in cases where the transmitter and thus the identification device have fallen into the hands of an unauthorized user.

The invention solves this problem with the features of patent claim 1.

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As an alternative, the verification of the user can also be done in the vehicle. Then the enabling signal and the information obtained by means of the identification device can be transmitted to the vehicle; and then, only when this information is that of the authorized user, are the corresponding functions of the vehicle triggered by means of the enabling signal.

The latter offers additionally the possibility of enabling several authorized persons to use the vehicle. To this end, the information of an authorized person is first transmitted. If then, for example, within a timespan of one minute, the information is transmitted in the form of biometric data of a new user, said new user will also be considered in the future as the authorized user. The prerequisite is that this information, just like the information of the first authorized user, be stored in the vehicle and kept on hand for a comparison with information that is subsequently transmitted.

Thus, it is possible, for example, to put the attendant at a hotel or on a parking lot in the position of using the vehicle by himself. Simultaneously it is guaranteed that the use of an unauthorized person is ruled out. It is also possible to limit the usage possibilities for the user, provided with authorization in this manner. Thus, for example, it can be logical to provide this person with only the use of the vehicle at a maximum speed of 20 km/h. This measure offers the advantage that, if the new user has obtained his authorization through force of the first user, this second user has only limited control over the motor vehicle.

The invention is explained in detail with reference to the drawings.

Figure 1 is an overview of the inventive remote control device for motor vehicles and

Figure 2 is an enlargement of a detail of Figure 1.

Figure 1 is a top view of a remote controlled vehicle 1, which has several transponders 2, 3, which are connected to a central control device (not illustrated). The transponders 2 and 3 are a part of a remote control device, which can be controlled by a mobile transponder 4. The transponder 4 is located in

today's conventional remote control key 4' and exhibits a number of contact switches, for example 5 and 6. The contact switch 5 serves to send the command "lock" or "secure" to a control device for the central locking and closing system of the vehicle (not illustrated). The contact switch 6 serves to send the command "unlock". Whereas the operating mode of the contact switch 5 corresponds to today's customary radio key, the operating mode of the contact switch 6 is designed according to the invention.

If the contact switch 6 is actuated, a sensor is simultaneously activated. Said sensor is located below the scanning element 6', which is made of a transparent material. The sensor 7 is shown in detail in Figure 2. Figure 2 is an enlargement of the key 4' of Figure 1. The sensor 7 takes a picture of the user's skin furrow structure and compares this structure with a structure, deposited in a storage (not illustrated) of the key 4. The comparison is done in the well-known manner using suitable commercial devices for fingerprint identification. If this comparison shows the user to be the authorized user, a transmitter, also provided in the key 4', transmits an enabling signal to the transponders 2 and 3, which then forward this enabling signal to suitable devices, for example, for central locking or starting of the vehicle. This signal can be individually tuned, as well-known, by means of an encryption mechanism to the respective vehicle so as to be safe from interception.

Instead of the illustrated and described embodiment with the comparator, which is arranged in the key 4' and is intended for the fingerprint of the authorized user, it is also possible to design the sensor 7 in such a manner that it records only information about the respective user's skin furrow structure and transmits this information to the vehicle, where the comparator is located. Said comparator compares this information with the stored information of the authorized user(s) and optionally carries out the described enabling operations.

After identification of an authorized user, it is also possible to store the biometric data (finger furrow structure) of another user or also transmit said data to the vehicle 1. Said identification can be made visible, for example, by means of a light display 8 in the key 4. This user is then also authorized and can in the future open or start the vehicle without previous authorization by the first authorized user. The only condition is that the biometric data be recorded by the sensor 7 in the described manner and compared with the then stored data of the same user. In this manner it is possible to record the usage authorization of several users.

Instead of a sensor, which responds to the skin furrow structure, a well-known voice comparator can also be provided in the key 4' that identifies the authorized user by means of his vocal spectrum.

In this manner it is possible to give only the authorized user the option of the actual use of the vehicle with the aid of the key 4. If the key 4 is lost, the biometric data of the finder and possible unauthorized user are neither stored in the key 4' nor in the vehicle 1. Despite possession of the key, he is not in a position to use the vehicle. The storage procedure can be done in a manner that is manipulation safe in that storage is only possible if the mechanical part 9 of the key 4' is inserted into a receptacle, e.g. the ignition lock of the vehicle 1 and unlocks there a mechanical stop.

In this manner effective protection against theft is achieved.

## Patent Claims

1. Remote control device for motor vehicles with a transmitter for a wireless transmitted enabling signal, which is activated only when the user has been recognized as the authorized user, and with an identification device, which recognizes this authorization and is assembled in one module along with the transmitter, characterized in that the identification device records the personal and individual characteristics of the user.
2. Device, as claimed in claim 1, characterized in that the identification device records a fingerprint.
3. Device, as claimed in claim 1, characterized in that the identification device records a vocal characteristic.
4. Device, as claimed in any one of the claims 1 to 3, characterized in that the identification device checks the recorded information and performs the verification check of the user.
5. Device, as claimed in any one of the claims 1 to 3, characterized in that the identification device transmits the recorded information to the vehicle and performs a verification check of the user in the motor vehicle.
6. Device, as claimed in claim 5, characterized in that, following the transmission of the information about the authorized user, corresponding information about a new user can be transmitted, who is then also authorized.
7. Device, as claimed in claim 6, characterized in that the authorization of the new user is restricted.

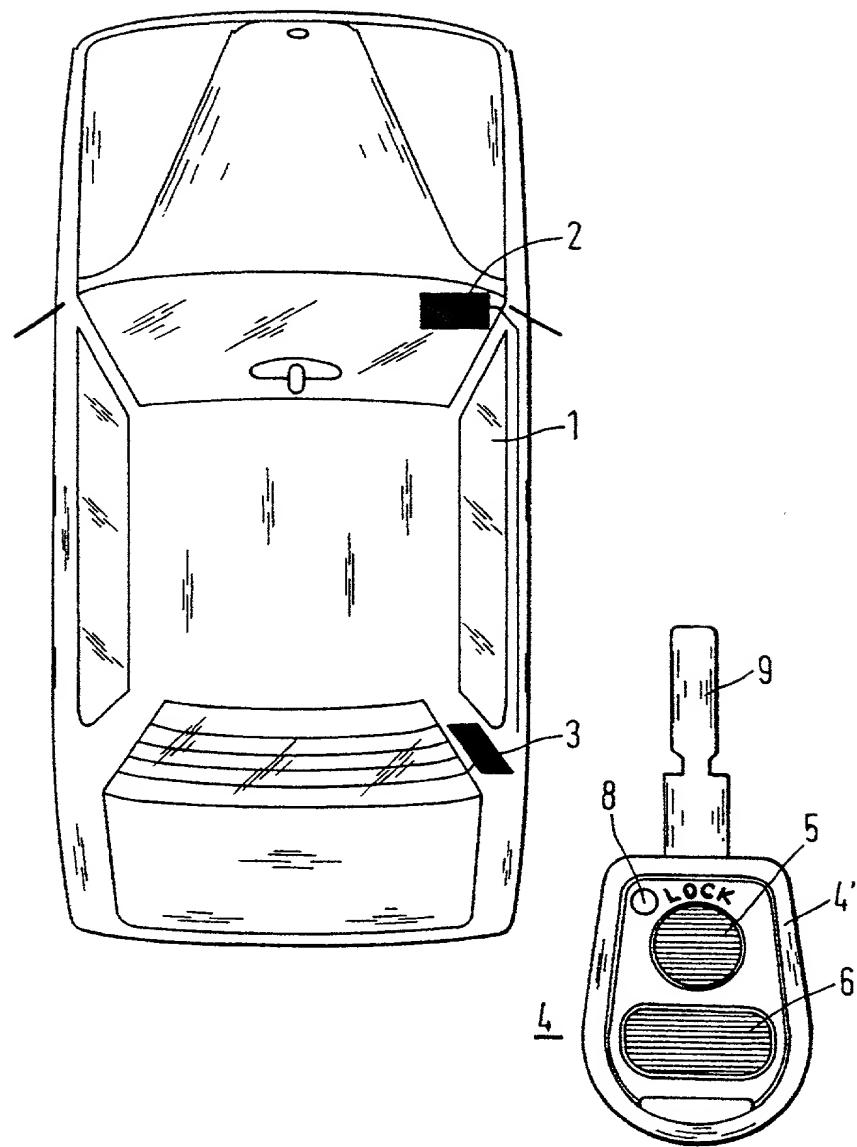
## New Patent Claims

1. Remote control device for motor vehicles with a transmitter for a wireless transmitted enabling signal, which is activated only when the user has been recognized as the authorized user, and with an identification device, which recognizes this authorization and is assembled in one module along with the transmitter, characterized in that the identification device records the personal and individual characteristics of the user and that the identification device transmits the recorded information to the vehicle and performs a verification check of the user in the vehicle.
2. Device, as claimed in claim 1, characterized in that the identification device records a fingerprint.
3. Device, as claimed in claim 1, characterized in that the identification device records a vocal characteristic.
4. Device, as claimed in any one of the claims 1 to 3, characterized in that, following the transmission of the information about the authorized user, corresponding information about a new user can be transmitted, who is then also authorized.
5. Device, as claimed in claim 4, characterized in that the authorization of the new user is restricted.

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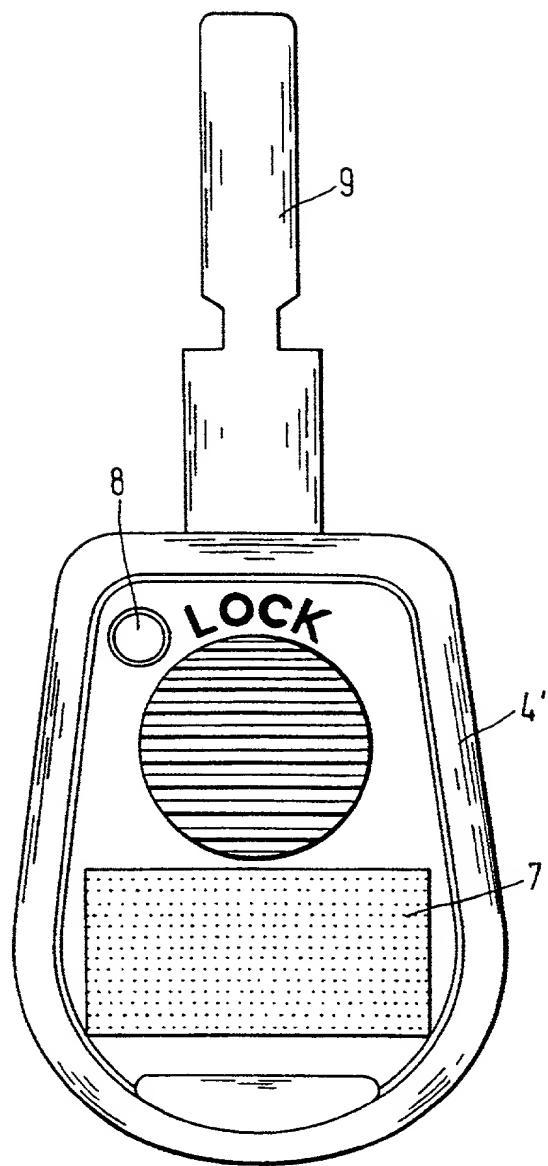
FIG.1



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FIG. 2



COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY  
(includes Reference to PCT International Applications)ATTORNEY'S DOCKET  
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951/49356

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

REMOTE CONTROL DEVICE FOR MOTOR VEHICLES

the specification of which (check only one item below):

 is attached hereto. was filed as United States application  
Serial No. \_\_\_\_\_  
on \_\_\_\_\_  
and was amended  
on \_\_\_\_\_ (if applicable). was filed as PCT international application  
Number PCT/EP99/02917  
on 29 April 1999 (29.04.99)  
and was amended under PCT Article 19  
on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

## PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. 119:

COUNTRY (if PCT indicate PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 USC 119
Germany	198 23 731.6	27 May 1998	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input type="checkbox"/> No



23911

PATENT TRADEMARK OFFICE

Combined Declaration For Patent Application and Power of Attorney (Continued)  
(includes Reference to PCT International Applications)

ATTORNEY'S DOCKET NUMBER  
951/49356

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application(s) and the national of PCT international filing date of this application.

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT  
UNDER 35 U.S.C. 120

U.S. APPLICATIONS		STATUS (Check one)		
U.S. APPLICATION NUMBER	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.				
PCT APPLICATION NO	PCT FILING DATE	U.S. SERIAL NUMBERS ASSIGNED (IF ANY)		

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. (List name and registration number)

6-  
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	POST OFFICE ADDRESS	POST OFFICE ADDRESS	CITY	STATE & ZIP CODE/COUNTRY

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 201 <u>Paul Aschauer</u>	SIGNATURE OF INVENTOR 202 <u>Michael Kohlbauer</u>	SIGNATURE OF INVENTOR 203
DATE 11-12-00	Date 2000-11-22	DATE